

**We claim:**

1. An oligonucleotide that hybridizes to a nucleic acid that encodes a fucosyltransferase, wherein said fucosyltransferase is selected from the group consisting of FUT3 and FUT6.
2. An oligonucleotide according to claim 1, wherein said antisense oligonucleotide hybridizes to a nucleic acid that encodes FUT3.
3. An oligonucleotide according to claim 1, wherein said antisense oligonucleotide hybridizes to a nucleic acid that encodes FUT6.
4. An oligonucleotide according to claim 1, which oligonucleotide activates RNase H.
5. An oligonucleotide according to claim 1, which oligonucleotide does not activate RNase H.
6. An oligonucleotide according to claim 1 selected from the group consisting of FUT3 antisense oligonucleotides having the sequence:
- AGGCCATGGCAGGTTTCCTG (SEQ ID NO: 1);
- AACTGAAGATCTACAAAAGA (SEQ ID NO: 2);
- ACCAAGGTTCTGGAAAGAGA (SEQ ID NO: 2);
- TGTAGGTCACCTGAGTGTGA (SEQ ID NO: 4);
- GCTGCACCCAGGGGATCCAT (SEQ ID NO: 5);
- TCTCGTAGTTGCTTCTGCTG (SEQ ID NO: 6);
- GAGCGAGGCCGCGAGCGTCTC (SEQ ID NO: 7);
- ATCAGCCAGAACCATCACTC (SEQ ID NO: 8);
- ACCTGTACCCTATAAGTGGT (SEQ ID NO: 9);
- GATAACTTACCTGGAGAGGC (SEQ ID NO: 10); and
- TTAGGGTTGGACATGATATC (SEQ ID NO: 11).

7. An oligonucleotide according to claim 1 selected from the group consisting of FUT6 antisense oligonucleotides having the sequence:

5 CCCACTCCTGCAGGGCAGTG (SEQ ID NO: 12);  
GGGTCTTCACCACTGGAGAG (SEQ ID NO: 13);  
AGTGAAAAGGCTGACCTGAA (SEQ ID NO: 14);  
TGGATGCCCCGTGACACTGGG (SEQ ID NO: 15);  
GCCGGGCCCAGGGGATCCAT (SEQ ID NO: 16);  
CACCCAGATCCAGCGTCCCA (SEQ ID NO: 17);  
ATCTCCTGACCTTGTGATCC (SEQ ID NO: 18);  
10 GATCTCCTGACCTAGGAAGA (SEQ ID NO: 19);  
TTCTCACTCAGTTGGCCCAT (SEQ ID NO: 20);  
CCAACCACCACACCTGTCAT (SEQ ID NO: 21); and  
GGACGAGTAACAGCTGGATT (SEQ ID NO: 22).

15 8. A pharmaceutical formulation comprising an antisense oligonucleotide according to claim 1 in a pharmaceutically acceptable carrier.

9. A method of treating a subject afflicted with cancer, comprising administering to said subject an antisense oligonucleotide according to claim 1 in an  
20 amount effective to treat said cancer.

10. A method according to claim 9, wherein said cancer is a carcinoma.

11. A method according to claim 9, wherein said cancer is selected from the  
25 group consisting of colon, pancreatic, ovarian, gastric, breast, lung, hepatocellular, prostate, bladder, renal, and uterine cancer.

12. A nucleic acid encoding an antisense oligonucleotide that hybridizes to a nucleic acid that encodes a fucosyltransferase, wherein said fucosyltransferase is  
30 selected from the group consisting of FUT3 and FUT6.

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13. A nucleic acid according to claim 12, wherein said nucleic acid is selected from the group consisting of DNA and RNA.

14. A vector that contains and expresses a nucleic acid according to claim 12.

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15. A pharmaceutical formulation comprising a vector according to claim 14 in a pharmaceutically acceptable carrier.

16. A method of treating a subject afflicted with cancer, comprising  
10 administering to said subject a vector according to claim 14 in an amount effective to treat said cancer.

17. A method according to claim 16, wherein said cancer is a carcinoma.

15 18. A method according to claim 16, wherein said cancer is selected from the group consisting of colon, pancreatic, ovarian, gastric, breast, lung, hepatocellular, prostate, bladder, renal, and uterine cancer.

19. A cell that contains and expresses a nucleic acid according to claim 12.

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20. An oligonucleotide according to claim having the sequence:  
GCTTGGCTGCACCCAGGGGATC (SEQ ID NO: 23) (FUT3 3.5).

21. An oligonucleotide according to claim 1 having the sequence:  
25 CTCTGCCGCTCCTGGACACTGCTGC (SEQ ID NO: 24) (FUT 6 LEADER).

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